TANG [HUMANITAS MEDICINE]

Review

Challenges and opportunities in integrating complementary and alternative medicine into mainstream of the Malaysian healthcare system

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ABSTRACT

Complementary and alternative medicine (CAM) practice is still popular among the Malaysian population nowadays although western or allopathic medicine is the first line of treatment. Dissatisfaction with health services and therapeutic effects of western medicine or preference for holistic, integrative approach in treatment are common reasons favouring the increasing popularity of CAM practices. The efforts toward integration of CAM and western medicine in Malaysia were rather slow and in a piece-meal fashion. Strategic efforts in strengthening government and self-regulation among practitioners, formalizing education, promoting research, and cultivating national and international networks are necessary to achieve an integrative system. Regulations to restrict the practice and sale of CAM products to licensed practitioners, strict and mandatory registration of the practitioners, inclusion of CAM in essential medicines list, and pricing regulations must be comprehensively discussed. Development of curriculum, offers of scholarship and incentives, promotion of courses and seminars for professionals is necessary to increase the numbers of CAM experts. Malaysia should follow the efforts of other countries on the production and documentation of local CAM data, allocation of funding, and establishment of research centres to assess the efficacy of potentially useful local products. Local and international collaboration in research and continuous education is important for exchange of knowledge and skills. In conclusion more coordinated efforts in regulation of CAM practice and products, formalizing CAM training and education would significantly move the process forward and allow the public to enjoy more health benefits from CAM practice in Malaysia.

Keywords integrative medicines, complementary and alternative medicine, healthcare reform, health practice, holistic health

INTRODUCTION

Scientific investigations and approaches based on experimental methods concerning efficacy and safety are the main characteristics of western or allopathic medicines (Klaimont and Barglow, 2001). The ideological and epistemological basis of allopathic medicines have been criticised, particularly by experts in social sciences and humanity, of ignoring individual subjectivity characterising the soul and physical body as separate entities (Klaimont and Barglow, 2001). Virtually all cultures that practice complementary and alternative medicine (CAM) believe in both therapeutic and wellness concept in balancing positive health, a holistic approach in curing diseases and maintaining individual health.

Traditional medicine is the sum of the total knowledge, skills, and practices indigenous to different cultures, used in the maintenance of health as well as in the prevention, diagnosis, improvement or treatment of physical and mental illness. In some countries, the terms "complementary medicine" or "alternative medicine" are used interchangeably (WHO, 2013b). In Malaysia, Traditional and Complementary Medicine is defined "as a form of health-related practice designed to prevent, treat, and/or manage illnesses and/ or preserve the mental and physical well-being of individuals excluding medical or dental practices utilised by registered medical or dental practitioners" (MOH, 2011b).

Complementary and alternative medicine (CAM) has been practiced long before the introduction of allopathic medicines in many countries. Even today, most of the populations (about 60-90%) in developing countries are still dependent on the relatively low cost and easily accessible CAM treatment, creating a huge market for CAM in meeting health care needs (Chen, 1981; WHO, 2002a; WHO, 2002b). However, information of CAM utilization in developing countries is still very scanty, making it difficult to estimate its extent of utilization and expenditure for budget allocation. Bangladesh and Indonesia in fact, are the only countries in South East Asia that have performed studies on CAM utilization despite being practiced for many centuries (Siti et al., 2009). Siti and colleagues also found that between 55.6% and 69.4% of the Malaysian population utilized CAM treatment modalities for managing problems and maintenance of health (Siti et al., 2009).

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This paper aims to review and describe current status and challenges of CAM integration in the Malaysian healthcare practices. This narrative review would also suggest various strategies that could be implemented by various stakeholders to facilitate the integration process.

MATERIALS AND METHODS

Databases including EMBASE, Pubmed, and Ovid were searched for published literature related to CAM practices. Initially, the search strategy was to identify English language literature from any part of the world that discussed about integrative healthcare systems. For the initial, broad selection, any literature describing or discussing health frameworks with terms such as, "integrative healthcare", and "complementary and alternative medicines", was included. Then, the selection was narrowed down to those especially relevant for the current review. A snowball sampling technique was then employed to search for more literature from the references of the identified articles. Based on the information gathered, the historical development and current status of CAM in Malaysia would be described and issues relating to integrating CAM into the healthcare system will be discussed.

RESULTS

CAM in Malaysia

Historically, before independence in Malaysia, aboriginals had developed their own treatment modalities based on natural resources. Influx of Chinese and Indian workers to increase economic productivity in the early 19th century had brought over their own CAM practice, further adding to the available options. Introduction of allopathic medicines in the early British colonial years did not produce much impact on CAM practice due to its health policy favouring only colonial employees (Wong, 2008). Provision of mobile dispensaries in reaching remote areas, training of local Malay girls as midwives, and incentives for non-Malay midwives who had passed Malay language examinations, were among efforts to gain the population acceptance of allopathic medicine in the late colonial period. Numerous structural developments of facilities, human resources and services had eventually boosted the popularity of allopathic medicines as the mainstay for managing health problems in Malaysia (Wong, 2008).

CAM is still popular and the practices have rapidly evolved in Malaysia, competing with the well-established allopathic medicines. A recent study reported that up to 73% of the Malaysian population have used CAM, vitamins, minerals and supplements in their daily life (Hassali et al., 2013). Annual market sales of CAM are estimated to be RM 1000 million (USD307 million) compared to RM 900 million (USD276 million) for allopathic pharmaceuticals (WHO, 2001). Herbal medicines in addition, constituted 44.2% (relative to 21% for pharmaceuticals or nutraceuticals) of the total value of the domestic market of RM 4.55 billion (US$ 1.2 billion) in 1999 (WHO, 2005). This market is expected to continuously rising, as occurring in nine other WHO member states. The annual market sales of herbal medicines in these states increased by 70.2% from US$ 706.45 million in 1999 to US$ 1005.68 million in 2001 (WHO, 2005). Non-registered products additionally are widely available on the market. A large number of items have been confiscated by the Pharmacy Enforcement Division on retail premises such as sundry shops, night markets, and sidewalks (MOH, 2011a). Patients are expected to pay for their own expenses on CAM as it is not covered in the national health scheme. This actually has led to underestimation of out-of-pocket payments for healthcare in Malaysia (WHO, 2013a).

Reasons for the popularity of CAM in Malaysia

Reasons for the continuous popularity of CAM in Malaysia are very similar to those reported for developed and developing countries. Dissatisfaction with the health services and therapeutic effects of allopathic medicine or preference for holistic and integrative approach of care are common reasons favouring the increasing popularity of CAM practices (Astin et al., 1998; Barrett, 2003). Cold and inflexible approach of nurses and doctors in public hospitals furthermore shift patient's preferences towards CAM practitioners who do not neglect the affective side of healing (Chen, 1981; Heggen Hougen, 1980; Klairmont and Barglow, 2001). A high degree of appreciation of the quality of care offered by CAM practitioners is another reason influencing health seeking behaviour and consumer satisfaction in developed countries (WHO, 2002b). These are among the main reasons of using CAM for the public, especially among elderly population who have strong beliefs in CAM practices. Sociodemographic factors including education level, monthly income and family history of CAM use were also significantly associated and positively correlated with CAM use (Hasan et al., 2010).

In practice, the population in Malaysia use both allopathic medicine and CAM as complementary systems, where they would seek help not available in the other system. Underestimated figure of the Malaysia National Health and Morbidity Survey II (NHMS II) reported that 3.8% of the population use both allopathic medicine and CAM (WHO, 2001). Most patients however, do not voluntarily disclose the use of CAM modalities as they perceive that doctors would disapprove and have a negative opinion towards this (Abuduli et al., 2011; Astin et al., 1998; Eisenberg et al., 1998; Hasan et al., 2010). This health seeking behaviour is similarly reported in the United States, European countries and Uganda (Barrett, 2003; Eisenberg et al., 1998; Hasan et al., 2010).

Generally speaking, allopathic medicines are most commonly used for acute diseases for symptoms relief by the population, while they will further seek help from CAM practitioners for managing chronic diseases. There is a perception "at least among some section of the population" that CAM is an effective natural plant-derived medicine that cannot harm their bodies. CAM is also perceived to be relatively cheaper and easily available, thus increasing people's willingness to pay for herbal medicines especially in rural areas (Ismail et al., 2005). In fact, even with the existence of modern and efficient healthcare system in Malaysia, 18% of elderly population in rural area did not consume any types of allopathic medicine at all. This indicates that the popularity of CAM in rural areas is not due to limited health facilities and human resources (Ismail et al., 2005)

Challenges towards an integrative system

Malaysia currently is operating an inclusive healthcare system which recognizes CAM practice as complementary or adjunct treatment in many occasions. Integration of CAM into the public health system alongside allopathic medicine is still an ongoing process. The integration process initially started when the British colonial government made amendments to the Midwives Act, to allow the "*bidan kampong*" (i.e., person responsible for childbirth, especially related to behavioural avoidance to ensure safety, ritual bathing of the mother and the ritual disposal afterbirth) to be registered and placed under

monitored practice alongside a trained midwife (Chen, 1981). This convergence process was further expanded with the establishment of CAM unit in the Hospital Kepala Batas, Pulau Pinang in 2007. Almost all public hospitals in every state eventually, have started to offer CAM modalities such as acupuncture, Malay massage, herbal therapy as adjunct treatment for cancer patients and Malay postnatal treatment for the population (MOH, 2011b). Scientific evaluation and testing of effectiveness, cultural and political variables, are still among debatable factors for the integration of CAM in Malaysian healthcare system, similar to most other countries (Klairmont and Barglow, 2001).

Demand towards an integrative system has increased in these recent years in Malaysia. In comparison, CAM has been officially incorporated into all areas of health provision in China, Korea and Vietnam. In these countries, CAM treatment modalities have been integrated into national drug policies. The regulation and registration of their practitioners and products are well established, the practices are reimbursed under health insurance at both hospitals and clinics, and relevant research and educational training for CAM are also widely available (WHO, 2002b).

The efforts towards an integrative system were widely discussed in the Malaysia parliament in relation to CAM bills in 2012 (MOH, 2012b). Regulatory issues such as the roles and responsibilities, licensing and regulation of practitioners, cooperation and better communication among experts from both CAM and allopathic medicine, practitioner's professionalism, standardisation and monitoring of heterogeneous practices, have been raised and discussed thoroughly (MOH, 2012b). Wide variations of CAM practices in Malaysia have raised many challenges in terms of documentation, categorisation, development of uniform system, and evidence-based practice of treatment modalities.

The integrative process is moving slowly ahead with some important progresses made, despite of all these debatable issues. Many of these progresses are important for future integration of CAM into the Malaysian public health system.

The future – what needs to be done

The health benefits of abundant cultural wealth of CAM could be optimized with its integration into the public health system in Malaysia. There are several areas where more coordinated efforts are required to facilitate the process of CAM integration. Efforts on strengthening government and self-regulation among practitioners, formalizing education, promoting research, and cultivating national and international network should be strategically implemented to achieve an integrative system.

Strengthening of government regulation

Comprehensive discussion and management of regulatory issues is the most important step in facilitating CAM integration into the Malaysian healthcare system to ensure the quality of CAM products and practices. In fact, the registration of traditional and alternative products in 1992 is to ensure quality and safety of CAM products from adulteration with allopathic medicine, and contamination with heavy metals and microorganisms (WHO, 2001). All CAM products have to be manufactured according to good manufacturing practice (GMP) guidelines for registration. Numbers of registered products have increased from 18,199 in 2007 to 21,242 in 2011 due to awareness among manufacturers (MOH, 2011a). Implementing this regulation has indeed improved the safety of CAM products in Malaysia. In 2012, the enforcement body found that 63% of a total of 49 non-registered products were adulterated with drugs that could produce multiple negative consequences and even death in the users, but only five registered CAM products (out of 632 registered products) were adulterated (Jaafar et al., 2013). New national CAM policies were launched in 2001 to regulate the registration and licensing of products and practitioners, national CAM programmes, and establishment of herbal medicine research centre and CAM division in the Ministry of Health (MOH, 2011b)

None of these registered products however, are included in the national essential drug list. This indicates that more scientific evidence is still needed for evaluation of the safety and efficacy of CAM products (WHO, 2002a; WHO, 2005). Unregulated national and international trade of medicinal products caused difficulties in estimating the market sales (WHO, 2001). Herbal products furthermore are still sold over the counter without any restrictions and pricing regulation. This unrestricted market sales together with no coverage for CAM products in the national healthcare system would underestimate the household expenses, specifically the health care expenditure of the population. This would hamper budget allocation in a future integrative system.

The inclusion of CAM in the essential medicine list hence, must be comprehensively discussed, balancing its risks and benefits. Regulation to restrict CAM sale by licensed practitioners in special outlets such as pharmacies and approved herbal shops would provide better consumer protection from unwanted safety issues and promote its rational use. Current pricing regulations for allopathic medicines should also be expanded to include CAM products, to ensure price transparency.

Strengthening of Self-Regulation among CAM practitioners

The establishments of professional associations will be indicators of signal changes within the system (Heggen Hougen, 1980). The practice of CAM have been standardized and formally recognized with the establishment of associations and registration of their practitioners in various countries. Chinese and Indian CAM practice are relatively more regulated with better training and examination to ascertain the competency of the practitioners (Heggen Hougen, 1980).

The Code of Ethics and Conduct of Traditional & Complementary Medicines Practitioners published by cooperation of CAM practitioners and responsible government, have further enhanced the regulation and standardisation of CAM practice. This ensure that all CAM practitioners have the required training and to monitor professional misconduct among them (MOH, 2011b).

Numbers of registered practitioners (including voluntary registration by local CAM practitioners and application for professional visa by foreign CAM practitioners) have increased from 8,739 in 2008 to 13,202 in 2012 (MOH, 2008; MOH, 2012a). This voluntary registration however, needs to be strictly regulated and made mandatory through partnership and discussions of the government and the CAM professional associations. This is to ensure that all practitioners possess an appropriate competency level in their practice..

Formalizing CAM education

Many studies have found that better training and education of practitioners are associated with less medication errors and better quality of services (Dong et al., 2011; Quek, 2010). In Malaysia, so far, the efforts include the establishment of seven bachelor degree programmes, six diploma programmes and recognition of the qualification from three universities from

China (MOH, 2011b). Elective classes on CAM modalities furthermore are offered alongside a number of pharmacy and medical programmes. CAM curriculums need to be offered at established educational institutions to produce adequately trained CAM practitioners. India have well-established education and training system, in which they have a capacity of 508 colleges offering undergraduate and 117 of these colleges are also offering postgraduate curriculum (WHO, 2013b). The medical undergraduate curriculums and establishment of accredited postgraduate training will ensure educational and infrastructural standards for appropriate referrals and acknowledgement of doctors (Rampes et al., 1997). Scholarship for knowledge advancement and incentives for subspecialties development should be offered to increase the number of CAM experts.

Courses and seminars on CAM have been incorporated in the continuous professional development strategies to increase training and education in many countries. Current continuous medical education and continuing professional development organized by the Malaysian Traditional and Alternative Medicine Division for the Ministry of Health staff should be expanded to include private practitioners. Besides updating the knowledge about CAM, these courses and seminars will hopefully alter the perception and strong reservations that hinders its referral and utilization among doctors.

Promoting CAM research

Artemisinin-based drug is originally based on ancient Chinese healing method. Its successful recognition as WHO standard regimen for malaria showed an enormous potential for CAM research (Xu and Chen, 2012). The effort should be followed through effective and strategic research planning. Internationally, various researchers and organizations such as National Institutes of Health in the UK, Centre for Traditional and Complementary Medicine Research at the Technische Universitat in Germany, and large numbers of CAM units at research institutes in the USA have put efforts in allocating additional funds to assess the efficacy of CAM (Fisher and Ward, 1994; Klairmont and Barglow, 2001; WHO, 2002b).

There should be greater effort to promote CAM research in Malaysia, to take advantage of the long cultural experience of CAM practice and abundant local natural plant products. Local data, establishment of research centres and sufficient funding towards development of potentially beneficial local products such as *Eurycoma longifolia* (Tongkat Ali) and *Labisia pumila benth* (Kacip Fatimah) are much needed. Introduction of CAM modalities in integrated hospitals have indeed created opportunity for more research and collaboration between institutions.

In terms of local data management, more effort should be focussed on producing monographs for various medicinal herbs. Currently, the first Malaysian herbal monograph (1999) is not considered to be legally binding (WHO, 2005). Published monographs furthermore should be adequately updated with the aim in the production of a pharmacopoeia.

The scientific interests and advances in medicinal plant research in Malaysia have evolved from phytochemical studies to discover biologically active compound towards development of quality, efficacious and safe herbal medicines for human consumption. Calanolide A (isolated from *Calophyllum lanigerum*) is the only compound from Malaysian plant that has been subjected for clinical trials by the National Cancer Institute (Jantan, 2004).

Efforts are also being made for product development of five selected herbal products commonly used in Malaysia, namely, *Eurycoma Longifolia Jack* (Tongkat Ali), *Labisia pumila benth* (Kacip Fatimah), *Orthosiphon stamineus* (Misai Kucing), *Andrographis paniculata* (Hempedu Bumi) and *Phyllantus niruri* (Dukung Anak) (MOH, 2011b). A study showed that *Eurycoma Longifolia Jack* (ELJ) could be preserved based on their cultivars origin in an uncontrolled cultivation area. This initial genetic marker study is to support conservation of ELJ for propagation and breeding programs (Razi et al., 2013). This is to ensure the availability of raw products, enabling Malaysia to become a leader in the production of nutraceuticals and botanical drugs. Besides enhancing commercial plantation, strategically planned natural product plantations and protection against exploitation are necessary for preservation of raw material (Razi et al., 2013).

Cultivating national and international network

CAM practitioners similarly should initiate and participate in activities to improve knowledge and skills regarding allopathic medicines for better referral and delegation of care in offering the best treatment for patients. Activities includes, but not limited to introduction of treatment modalities and toxicological studies of allopathic medicine, and management of healthcare system in the country.

Local and international collaboration in research as well as continuous education is important for exchange of knowledge and skills. Participation of personnel in local and international conferences, as previously discussed, has shown many successful achievements. Malaysia should learn from the experience of other countries where CAM is part of the main stream health care system. The recent signing of the Memorandum of Understanding (MoU) on Cooperation in Traditional Medicine with China is a good example (MOH, 2011a). This collaboration should be expanded to involve other countries such as Korea and Vietnam that have successfully implemented integrative system. Further collaboration with international universities with established CAM programmes, would facilitate the growth of knowledge and expertise in this area.

CONCLUSION

In conclusion, the CAM practice has a long history and is well accepted by the public in Malaysia. Over the years, there are efforts initiated by the government to integrate CAM into the main stream health care system, but the process is rather slow and haphazard. More coordinated efforts in regulation of CAM practice and products, formalizing CAM training and education etc. would significantly move the process forward and allow the public to enjoy more health benefits from CAM practice in Malaysia.

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CONFLICT OF INTEREST

None declared

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